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MODERN PARIS.

LETTER XII.

Paris, 14 September, 1807.

Population of Paris, compared with that of London—Number of births, deaths, marriages, and divorces, in the French metropolis, in the year 1802.—Quantity of bread, and other articles, consumed by the Parisians annually—Garlick—Frog-soup—John Bull's annual bill of fare—English partiality for port-wine—Fraud in the wine-sellers—Fruit much dearer in London, than in Paris—The lower classes of Englishmen more inclined to intoxication than the French—A national character, not easily described—Vivacity of the French.

I know not what should have induced any author to assert, that the number of inhabitants, in the English and French capitals, is nearly equal.*

* *Encyclopædia Britannica.* Art. *Paris.*

No one, who has viewed London from the dome of St. Paul's, and Paris from the summit of *Mont-Martre*, can hesitate a moment in pronouncing, that the former must contain nearly double the population of the latter.

Were a calculation to be founded on their comparative areas alone, the disproportion would be still greater. The circumference of Paris, including ten of its suburbs, is but nine thousand toises, or about eleven miles: whereas London "extends to nearly eight miles in length—is three miles at least in breadth, and not less than twenty six miles in circumference.*

"But this, you will say, is a fallacious mode of computation: for travellers inform me, that the streets are narrower, the houses higher, and occupied by more families, in the French, than in the British, metropolis: the number of people must, therefore, be greater, on an equal superficies." This is undoubtedly true; but the difference is not so considerable as is generally imagined. In the most fashionable quarters of Paris, the streets are but little narrower, and the houses are not so high as they are in the best sections of London. Besides, most of the large Parisian hotels are furnished with commodious gardens, and spacious courts; accompaniments, which are rarely to be met with in the English capital. The palace of a French nabob, or a grand officer of state, covers as much land as four, or five, magnificent houses in the west of London. It must be acknowledged, however, that the deficiency of inhabitants, in the new and most eligible parts of Paris, is more than counterbalanced by the immense population, which swarms around the centre of the city.

These remarks are only preliminary to a statement,

*Colquhoun.

which I am about to make—a statement, which does not rest on conjecture, or vague calculations, but on authorities, which you will have no inclination to discredit. “The number of inhabitants in London,” says Mr. Colquhoun, a gentleman, who is probably better acquainted with that city than any other man now living, “may be rationally estimated at *one million* at least.”* The population of Paris, according to the Imperial Almanac, or Court Register for 1807, (and it is not likely a Parisian author would underrate it) is reckoned at “*Five hundred and forty seven thousand seven hundred and fifty six.*”† A Member of the National Institute assures me, that this estimate is esteemed very correct. We may, therefore, safely conclude, that the population of Paris is but about half as great as that of London.‡

* The population of London is now found, by enumeration, to be, according to the Christian Observer, only 945,068.

† Monsieur Necker stated the population of Paris, a little before the revolutionary troubles, to be 660,000. In 1790 it was found by actual enumeration to amount to only 550,800. Allowing both these statements to be correct, we see that the revolution, (excluding the operation of collateral causes, which may have existed) produced a diminution of 109,200 in the population of the metropolis. What then must have been the total amount of lives lost in the whole empire!

‡ During the year 1802, the number of males, born in Paris, was 9296; and that of females 9177; making the total of births 18473. Of these, the males, born out of wedlock, amounted to 1792; and the females to 1852; making the total of illegitimate births 3644. The number of males, deceased within the same period, was 10,446; that of females 10,301; making in all, 20747. The annual decrease in the population of the capital was, consequently, 2274. The number of marriages, in the same year, was 3826; and that of divorces 720, which is nearly 2 out of 11.

What a vast assemblage of mortals are occupied in the business, and pleasures, and vices of life, in these two capacious capitals! The entire number equals nearly one fourth the present population of the United States.

It may amuse you, my friend, to know how the jawbones of all these—carniverous, and graniverous, animals are employed during the course of the year. The following *esquisse* taken chiefly from the '*Miroir de Paris*,' published in 1806, shows that the inhabitants of this city consume annually of

Oxen	75,000
Cows	15,000
Calves	103,000
Sheep	220,000
Hogs	558,375
Pigeons	437,000

Of Fish.

Eels	560 Quintals.
Pike	900 Do.
Carp	20,000 Do.
Herring—to the amount of	400,000 Francs.
Oysters	40,000 Do.
Lobsters	80,000 Do.

Bread—about 86,000 tons!

These substantial articles are washed down with

Cider	6,000 hogsheads.
Beer	30,000 Do.
Common wine—to the value of	30,000,000 Francs.
Brandy	3,000,000 Do.

This list might be augmented by the addition of hundreds of other articles, which I have not, at present, time to enumerate.

I find no estimate of the onions and garlick devoured by the Parisians. Perhaps the quantity is incalculable. The croaking gentry too I neglect to notice, because I have not yet seen any of them sprawling on a French table. An American gentleman, however, who is now travelling in the southern departments, writes me, that he has frequent opportunities to banquet on *frog-soup*.

REMARKS.

You perceive, that one leading trait, in the *eating* character of Monsieur Frog, is an extraordinary fondness for bread. The French bread is every where celebrated. It is remarkably white, and porous, and is generally baked in rolls, from six inches to two or three feet in length, and from one to six inches in diameter. Porters, of both sexes, are employed in distributing it through the city, every morning, from the bake-houses. A sort of basket, and, sometimes, a machine, consisting of four, or six, pieces of wood, framed together, is hung over the back, suspended by a strap from the forehead, or breast, on which the rolls are piled, like sticks of wood, or bundles of faggots. An old woman, less beautiful than the statue of Ceres, in the garden of the Thuilleries, trudges past my lodging every day, greatly oppressed by the weight of years, but far more by the weight of *bread*. You not unfrequently see large dogs tackled to *Lilliputian* carts, and drawing loads of bread through the streets.

The common wine, above mentioned, costs from ten to thirty sous a bottle. It is the ordinary beverage of all classes of people, and is always drunken from large glasses, or tumblers.

From John Bull's annual bill of fare I can give you only a few straggling extracts, copied chiefly from the "Stran-

ger's Guide through London." These show, that there is a yearly consumption of

Oxen	110,000
Sheep and Lambs	776,000
Calves	210,000
Hogs	210,000
Sucking Pigs	60,000
Milk	6,980,000 gallons,

which costs the consumers 481.666 £. sterling;

Vegetables and Fruit—to the value of 3,000,000 £.

Wheat 5,600,000 bushels.

Butter 16,600,000 lbs.

Cheese 21,100,000 lbs.

Spiritous Liquors 11,146,782 gallons.

Wine 32,500 tons.

Ale and Porter 1,113,500 barrels.

To this imperfect catalogue of articles consumed by the Londoners, I shall subjoin the following

OBSERVATIONS.

1. You must not conclude, because a greater quantity of wine is consumed in Paris, than in London, that the French are more partial to this exhilarating liquid than the English. The fact, I believe, is quite otherwise. The difference in the quantity drunken is owing to the astonishing difference, which exists in the price of wine in the two countries. In the one, its cheapness places it within the reach of every body. In the other, its dearness precludes it from the tables of all but the opulent. I have seen no people, who have less antipathy to the

"Spumantem pateram"

than some of the higher classes of Englishmen. They use,

principally, port wine, because they believe it to be more favourable to health, in their moist climate, than any other kind. It costs from four to six shillings a bottle.

There is incalculable fraud connected with the wine trade of London. Vast quantities of liquor are bought, and used, as port-wine, which contain little, and, often, not a particle of the juice of the grape. I once heard a gentleman humorously remark, "that more *port-wine* was annually consumed in London than was made in Portugal." It is manufactured from a great variety of articles, some of which are evidently deleterious to health. They are a de-*ceitful* poison, which secretly creeps into the system, gradually undermines the constitution, and finally lays its victim in the grave. A portion of this pseudo port-wine, which was lately submitted to chemical analysis, turned out a considerable quantity of red *lead*! To what acts of iniquity and barbarous fraud will not the love of money instigate man! And is this destructive knavery confined entirely to London, or even to Great Britain? Is it not practised to some extent in the large cities of our own country?

2. You would undoubtedly form a very erroneous estimate of the quantity of fruit, sold in the London markets, were you to judge of it only by the immense sums expended for this article. But to judge with any tolerable accuracy, you must be informed, that many kinds of fruit are, at least, twelve hundred per cent. dearer in that capital, than they are in Paris. The ordinary price of a peach in London, in a fruitful season, is between six pence and a shilling sterling. In times of scarcity, it sometimes rises to five or six shillings. Six pence will often procure you half a peck of peaches of superior flavour and equal size, on this side of the channel. The price of melons is nearly in the

same proportion. Grapes are, frequently, still dearer. I have known them six shillings a pound. Here the same quantity may be had for *two pence*. This wonderful disproportion, in price, is occasioned by the unpropitiousness of the English climate to the production of these luxuries. To raise them requires much care, and, generally, the assistance of artificial heat. Here they grow almost spontaneously, and in the open field.

3. The dearness of spirituous liquors, as well as wines, in England, prevents their being in general use among the lower orders of people. As a substitute for them they drink astonishing quantities of malt liquor. Mr. Coluhoun makes the ale and porter, sold, annually, in the five thousand publick houses of London, and its suburbs, amount to *two million three hundred and eleven thousand four hundred and sixty six pounds sterling*. You will hardly credit me, (though I relate it from the above authority) when I tell you, that it is not uncommon for an English labourer to drink from twelve to sixteen pots of porter a day.

“ It will be expected,” you say, “ that, after residing a considerable time among the two great rival nations of Europe, you will furnish us with a full-length likeness of their distinctive characters.” This, my friend, would be an enterprize, which I have not the presumption to undertake. The thought of effecting it was, indeed, cherished for a time, but is now wholly relinquished. The more I reflected on it, the more Herculean the task appeared. A national character is a compound made up of ten thousand heterogeneous materials—a compound, which it requires vast pains to analyze, and almost infinite discernment to discover, and distinguish, all its different ingredients.

A propensity to generalize, if you will allow the expres-

sion, or to draw general conclusions from too small a number of facts is a fault attached to most travellers, and one, into which I shall be liable to run, notwithstanding my endeavours to guard against it. Observing a particular trait in the appearance, or conduct, of a few persons around them, they are apt to consider it a characteristick mark of the whole nation; when perhaps it is a local circumstance, peculiar to a few individuals, or to the inhabitants of a single town, or department. It is on this account, that attempts to describe the character of a nation are usually, not only unsuccessful, but the source of numberless errors.

But though all the features and shades, which are necessary to constitute a just and complete portrait, cannot be drawn, without much industry and skill, and a long residence in a country, there are, notwithstanding, some striking peculiarities, belonging to every people, which instantly attract the stranger's notice, and which may easily be described. In passing directly from London to Paris, I must have been blind not to observe some of these peculiarities in the English and French character.

One which early excited my observation is this.—The English, or, at least, the inferior classes of them, are more inclined to intoxication, than the French. It is rarely possible to pass through the old, and narrow, streets of London, in the afternoon, without witnessing several miserable devotees to this vice, lying helpless on the side pavements, and, sometimes, half covered with their own disgorged filth—A disgusting specimen of human depravity.

In every quarter of the city are ale-houses and gin-shops, where the votaries of drunkenness continually celebrate their orgies. The porter, gin and compounds consumed, annually, in these nurseries of disorder and crime, are estimated at *three million three hundred thousand pounds ster-*

ling! "This immense sum," says the able author of a treatise on the Police of London, "equal to double the revenue of some of the kingdoms and states of Europe, independent of other evil consequences, must, in a certain degree, debilitate manhood—lessen the powers of animal life and shorten its duration."

English labourers receive their wages on Saturday.—Many of them resort immediately to the ale-houses, where they spend the night, and, sometimes, the succeeding day, in rioting and debauchery. Curiosity, excited by hearing an outcry, as I once passed near Westminster bridge, on Saturday evening, induced me to look into one of these haunts of thoughtless, self-destroying Bacchanalians. I found a part of the inmates at loggerheads, and a part on the floor, vanquished by the blows of their companions, or by the enebriating cup—that open enemy of morals, reason, and decency.

No such spectacle have I witnessed in Paris. In none of my peregrinations in the city, since my arrival here, have I yet observed a single instance of intoxication. Instances, no doubt, there are, but were they a hundredth part as common as they are in London, I should certainly have observed some of them. To what cause must we attribute this dissimilitude of character? Is the Frenchman deterred from the practice of this vice, by the beastly appearance, which the drunkard exhibits; or by a constitutional disinclination to indulge in it?

The lower orders of people in London possess less vivacity, compared with the higher classes, than they do in Paris. This is probably owing, in a great measure, to their immoderate use of malt liquor, "which, as the author whom I have so frequently quoted, observes, "after a cer-

tain quantity is used, enervates the body and stupifies the senses."

ADIEU.

LETTER XIII.

Paris 16 September, 1807.

The Abbé Haüy—His personal appearance.—His mineralogy ;—a work not universally approved by mineralogists.—His Treatise on Physics.—The Abbé appears not to have adopted the principles of his infidel countrymen.—His Excellency Mr. B.

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I must no longer neglect to inform you that my letters of introduction have brought me acquainted with a number of French *savans* ; most of whom I shall omit to name till we arrive at those branches of learning, and the arts, with which they are principally connected. I shall introduce but one to your notice at present. You have often heard of the

ABBE HAUY.

His mineralogical fame has run through Europe and America. I visited him, a short time since, in company with Mr. C. Mon. Haüy, in consequence of being a professor at the Museum of Natural History, occupies a house in the Garden of Plantes, where most of the gentlemen, attached to that establishment, are furnished, by the government,

with small, but commodious dwellings. We found him at the window of his study amusing himself with viewing the garden, in a camera obscura. I was struck with the diminutive size, and insignificant appearance of the philosopher of St. Just. His bald head, wrinkled brow, and tremulous step pronounce him to be about sixty-five. He may be older. His body is slender; his head disproportionately small; and his voice feeble and effeminate. It would be difficult, I imagine, for the most experienced Lavaterite to discover any thing in his exterior, which he would venture to call the index of such a mind as the Abbé Haüy is known to possess.

He received us with great politeness, and spent more than an hour in showing us his philosophical instruments, and a small cabinet of minerals. He then entertained us with several very curious galvanic experiments, and with some interesting observations relative to certain minerals, and, particularly, the tourmaline, which, when heated, possesses the singular property of becoming positively electric in one of its extremities, and negatively, in the other.—Tourmaline is the stone in which this property was first recognized.

When speaking of mineralogists, the Abbé Haüy enquired after two of our countrymen, besides Mr. Maclure, who, he observed, were entitled to much credit for their mineralogical exertions and improvement. These were Dr. Bruce, who has recently been appointed professor of mineralogy in the University of New York; and Col. Gibbs, of Rhode Island.*

* It will afford pleasure to every friend of physical science, to learn, that this enterprizing mineralogist, actuated by a spirit of liberality, which too rarely characterizes men of opulence, has lately deposited his grand collection of minerals, which was

The Abbé Haüy has favoured the world with an elaborate treatise on mineralogy; in which he has displayed an extensive and profound knowledge, not only of this particular science, but also of several others, which he has rendered auxiliary to the developement and explanation of the phenomena of the mineral kingdom.

As this work is one of the most celebrated productions of the present age, I shall endeavour to give you a sketch of some of its leading features. This sketch, formed from a hasty perusal of the work, must necessarily be concise, and will unquestionably be very imperfect. But if it should, as I trust it will, induce you to purchase and examine the Abbé Haüy's grand "*Traité de Mineralogie*," my object will be fully answered.

The author has, in some respects, deviated from, or rather improved, the systems of all preceding mineralogists.—Without adhering strictly to the method of Linneus, Wallerius, and others, who determine the species, genera, orders and classes of minerals, from their external characters only; or to that of Cronstadt, Bergman and Kerwan, who classify according to the results of chemical analysis, he has happily blended in his own system the advantages of both these methods. His superstructure is built on a broad and firm basis; and most of the physical sciences are made to contribute their aid to its erection and support. Natural philosophy, chemistry, and geometry are all pressed into the service of mineralogy.

Chemistry, by its analysis of substances, he considers the
considered the most extensive and valuable in the United States,
at Yale College, New-Haven; where it will be of far greater
utility to the publick, than it could be, while in the hands of
any private individual.

chief directress in the classification of minerals; natural philosophy conspires with chemistry in furnishing them with distinctive characters, and geometry stands ready to describe their crystalline forms, and investigate the structure of crystals, which in the language of the author is "only the result of a natural geometry subjected to particular rules." "The mineralogist and chemist," he says, "should enlighten each other by their labours, and geometry, which supplies data for submitting crystalline forms to calculation, should be associated with the scales, which weigh the products of analysis."

He arranges all the bodies of the mineral world in four classes, which are subdivided into orders, genera and species.

The First Class comprises all those substances, in which an acid is combined with an earth, or an alkali, or with both.

The substances belonging to this Class are separated into three orders; the first comprising those bodies, which are composed of an earth and an acid; the second, those, which are composed of an alkali and an acid; and the third, those which are composed of all the three united, viz. an *earth*, an *acid* and an *alkali*.

The Second Class embraces *earthy* substances, or those into whose composition, no acid enters. The Abbé Haüy believes that we are not sufficiently acquainted with the objects embraced in this Class, to enable us to divide them into *orders* and *genera*. He has therefore arranged them all in species, connected together only by some common analogies.

The Third Class comprehends combustible bodies; or all those mineral substances, which are combustible and not metallic; such as sulphur, the diamond &c.

The Fourth Class includes all the metallic bodies, and is divided into as many genera as there are different metals.

Having fixed on this mode of general arrangement, the author's next object is to assist the student of nature, in determining to what part of the system any individual substance belongs, without being obliged to put it to the torture of the crucible, or submit it to the action of chemical re-agents, which is often inconvenient, and sometimes, impracticable. Here he resorts to external characters; to such as are obvious to the senses of every observer; and gives a catalogue of all the known properties, which are common to each species. In this he designates

1. *Essential Characters*; whatever they are; such, for example, as *blue colour* and *solubility in water*, in the sulphate of copper.
2. *Physical Characters*; such as *specifick gravity*, *hardness*, *double, or single refraction*, *electricity*, *magnetism*, *phosphorescence &c.*
3. *Geometrical Characters*; such as *primitive form*, *fracture*, *structure &c.* And lastly

Chemical Characters; such as *fusibility*, *detonation &c.*

The author has evidently bent most of his force to the investigation of the geometrical, or primitive forms of minerals. This is his fort. And in this part, he has displayed such extraordinary ingenuity, such enlightened and persevering research, and such a minute acquaintance with his subject, as must, I think, insure him the close attention of every reader, and particularly, of the mechanical philosopher.

It had long been known, that certain substances, when allowed to crystallise according to the laws of affinity, always assume a particular form. This circumstance had engaged the attention of Newton, Boyle, Romé de Lisle, and

other eminent cultivators of physical science. But it was reserved for the Abbé Haüy to demonstrate that not only the forms of crystals are regular, but likewise that the forms of the integrant molecules, or elementary particles, of which crystals are composed, are also regular, and similar to the ultimate figure of the crystal.

It belonged to him to augment the sphere of crystallography to such a degree as to embrace a large proportion of the objects of the mineral kingdom; and to elevate it to a rank among the exact sciences.

He has literally brought "order out of confusion." By an ingenious mechanical division of an apparently shapeless masses, he has developed regular figures, and the most delicate structure. By following nature close at the heels, in her inimitably perfect operations, or rather by unravelling her works, he fully evinces that she has displayed no less wisdom and design in this department of creation, than she has in the vegetable and animal kingdoms.

If Sir Isaac Newton is entitled to immortal honour for his investigation of the laws by which the motions of the heavenly bodies are regulated, and for the perfection he gave to the science of astronomy; certainly the Abbé Haüy is not undeserving a large portion of praise for his successful researches in the regions of inorganic matter; and for the mathematical precision, which he has introduced into the science of mineralogy.

This system, excellent as it appears to me to be, does not meet with universal approbation. It is opposed by some celebrated mineralogists. The principal objections, that I have heard alleged against it, are, "that the discovery of new forms, which happens almost daily, will keep it always changing; and that it comprises, strictly speaking, only those bodies, which are crystallised; whereas a vast pro-

portion of mineral substances are never found in a state of crystallization." How weighty these objections ought to be considered, I shall not pretend to decide. It appears to me, however, that the discovery of new forms, instead of injuring, will, by enlarging the number of objects it embraces, give greater perfection to the system.

I have already hinted that the Abbé Haüy's attention has not been confined exclusively to mineralogy. He is a distinguished cultivator of natural philosophy; and has recently published the second edition of a useful elementary treatise on that science. It was written at the particular request of his majesty the emperor, to whom, in the introduction, he has not been forgetful to render a copious tribute of customary adulation.

The work was prepared for the use of the French Lycées. It is worthy of appearing in more languages than one, and I hope some experienced translator will soon give it an English dress. With the omission of a few sections, which are better calculated for the meridian of France, than for that of the United States; and with the addition of a few more illustrative experiments, the work would be a useful manual for the students of philosophy in our academies and colleges.*

This writer appears to have escaped the contagion of infidelity and atheism, which has had so wide a spread, and taken so rank a hold, on the minds of most of his countrymen. Whether labouring in the domains of mineralogy, or physics, he frequently recognizes traces of a divine hand, and seems desirous of offering to the Great Architect a deserved homage for the creation, which he is permitted to explore.

* This work, we understand, is now translated into English.

The Abbé Haüy belongs to the Legion of Honour, and is a member of most of the scientifick societies of Europe, but it is said, that he esteems his ecclesiastical dignity more highly than all his other honours.—His deportment is christian meekness personified. His manners are easy and his conversation enlightened and instructive. Before we left him, he pointed out such objects, in the city, as he thought a stranger ought to examine, and proffered me any services of his, which would render my stay in his country more useful and satisfactory.

Among the Americans, from whom I have received civilities, I am happy to mention his Excellency Mr. B. appointed Minister to the Court of Madrid, but now resident in this capital. I have dined several times at his house, when I have always found a large, but select, party of respectable guests. Mr. B. lives in a style, which is highly honourable to the man of opulence, and to the diplomatick character.

ADIEU.

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LETTER XIV.

Paris, September 18, 1807.

Few streets of great length in London, or Paris.—The French capital contains 1106 streets,—most of which are extremely narrow.—Carriages of the ancient nobility used to move with great velocity.—Carriages less numerous than formerly.—Labourers employed in paving the streets.—The city badly lighted in the night.—The penalty of breaking a lamp under the reign of Louis XIV.—Hotels; their number, situation, height; gardens belonging to them.—Courts.—Porters.—

Thirty thousand Dwelling houses in Paris.—Grated windows.—New mode of numbering the houses.—The situation of the city low, level, and often half deluged with water.—Board bridges.

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LONDON contains but three, or four streets, which are distinguished by their great breadth or length. These are Oxford-street, Piccadilly, and the Strand, all prolonged under different names. The streets of Paris are more extended, and more uniform, than those of the British metropolis. But few of them, however, are remarkably long, except those of St. Martin, St. Denis, and St. Honore. The two first run, parallel to each other, across the whole city from north to south, passing near its centre, and are cut, at right angles, by the third, which follows the direction of the Seine. The French capital contains, besides avenues, alleys and narrow lanes,

1106 STREETS.

A traveller, who visited Paris about a century ago, remarked, that “the palaces and convents had *eat up* the people’s dwellings, and possessed themselves of the ground.” The habitations of the great mass of citizens, though not quite “eat up,” are indeed compressed into a very limited space. In the most ancient parts of the town, the streets are excessively narrow. Some of them are scarcely wide enough to admit a single carriage ; and yet many of the houses, in this quarter, are six, or seven, stories high, and frequently occupied by as many distinct families. The air, here, is cool and moist, in the hottest days. In these deep, polluted air-boxes, the sun pours but few of his enlivening rays.

The streets in the newer sections are sufficiently broad, but are wholly destitute, except in a small number of instances, of side-walks, or paved foot-ways. The pedestrian is, therefore, incessantly liable to be annoyed, and run over, by the passing carriages. Before the revolution, the most disastrous accidents frequently occurred. And how could it be otherwise, when a man's greatness, in the eyes of the rabble, depended on the velocity with which his carriage-wheels rolled over the pavements? If the postillion drove with Jehu-speed through a crowd of staring spectators—knocked down half a dozen, and perhaps killed one or two, it was immediately concluded, that his master must be a great man—a duke, or a bishop, at least.

“ *Sit mihi fas audita loqui.* ”

The guillotine has done much towards removing the evil. It has taken off the heads of most of these hard riders. The carriages are said to be not more than one sixth as numerous as they were formerly, nor are they suffered to move with such destructive rapidity; and yet walking in the streets is attended with not a little inconvenience and danger. If your bones are not fractured, your clothes are often seriously bespattered.

A vast number of labourers are now employed in paving new streets, or repairing old ones. The stones, they use are extremely hard, and are brought from Fountainbleau. They are not round, but cut into square figures, whose upper surface forms a parallelogram of about eight inches by six. The pavement is, consequently, quite flat, when new, but is soon rendered uneven by the continual attrition of carriages, and the corroding elements.

In such a city as Paris,

4500 LAMPS

are but a miserable substitute for the full blaze of solar light.

They are not placed on the sides of the street, as in England and America, but suspended over the middle of it, by cords, the ends of which are fastened to the walls of the houses, or to tall posts erected for the purpose. They are easily let down to be lighted, by loosening one end of the cord.

The crime of breaking a lamp was anciently punished by sending the offender to the gallies. Louis XIV raised a considerable revenue, by obliging the principal cities of the kingdom to pay large sums for the privilege of lighting their streets with lamps. In the reign of this monarch the expense of supporting the Parisian lamps, during five months of the year, amounted to 50,000*£.* Sterling.

HOTELS.

This word signifies any large, and splendid house, whether a publick inn, where rooms are let to lodgers, or a private dwelling. The number of buildings of this description is estimated at five hundred and fifty. In monarchical times they were mostly inhabited by publick officers, rich merchants, and grandees of the court. They are in general but two, or, at most, three stories high, built of large hewn stone, and stand several rods back from the street. The gardens attached to them are of various sizes, and, in some instances, are laid out with much taste. The arrangement frequently displays a combination of the English and French modes of gardening, which are very different. In these enclosures you find an extensive assemblage of foreign and indigenous plants;—you find, indeed, every thing but what is *useful*. And a neglect of this vulgar part of the establishment is not to be wondered at; for the French, you know, build, dress, converse, dance and garden, for elegance,—not for convenience; for show;—not for utility.

In front of the hotel is a paved yard, or court, capacious enough to hold the carriages and horses of a goodly number of visitors. It communicates with the street, by a broad double gate, by the side of which lives the listening porter. A single rap with the ponderous knocker, which hangs on the gate, brings him instantly to his post. He opens to you, less growlingly than the old janitor of Erebus, and, after enquiring, if you wish to see *Monsieur, ou Madame*, he rings the house bell for a servant, or else, conducts you in himself, with all the ease of an accomplished courtier.— There are in Paris, the hotels excluded,

80,000 DWELLING HOUSES.

These are principally constructed of rough stones, cemented together with plaster. There are some brick houses in the oldest parts of the town. The plaster is used in a liquid state, and poured into the work as fast as it is laid up. It insinuates itself into all the vacuities of the wall, and uniting with the stone, the whole becomes, in a short time, one permanently consolidated mass.

The lower windows of nearly all the houses are secured against the encroachment of midnight predators by strong iron grates, which give them too much the appearance of prisons.

The Parisians have recently commenced numbering their houses, in such a manner, that all the odd numbers shall fall on one side of the street, and the even ones on the other. This is a great convenience both to the citizens and to strangers. Knowing the number of the house, at which you wish to call, you can, as soon as you enter the street, determine on which side to drive or walk, and thus avoid the necessity of crossing a dirty street, and exposing yourself to hindrances, and danger, from a throng of people, or

a press of coaches. This is no small advantage, especially in the night.

The French claim the honour of being the inventors of this new method of house-numeration, but, if I mistake not, it was known and practised, in America, long before it was published in France, or in Europe. Is not this the way in which the houses in Philadelphia have always been numbered?

Historians tell us that the land, on which Paris stands, was once a dismal, muddy swamp—*un vil amas de boue*.—It is low, flat, and moist, and is partially deluged by every uncommonly abundant fall of rain. Last week, after a copious shower of two hours duration, a number of streets were filled with water nearly to the doors of the houses. I happened, at the time, to be half a mile from my lodgings. Returning home I was obliged to cross the streets, in several places, on little board bridges, which had been thrown over the water by a parcel of street-cleaners, and other half-starved wretches, to whom I cheerfully gave a few copper coins, for saving me from the effects of wet feet. It is their harvest season, and they sometimes solicit the little gratuity with troublesome importunity. But humanity forbids your blaming, or denying them.

‘Necessity demands their daily bread :

Hunger is insolent and will be fed.’

They are not unreasonable. A single sous they accept with gratitude, make a low bow, and pray for another flood.

LEIEU.

LETTER XV.

Paris, 22 September, 1807.

The memorials of the revolution are passing away — The decade abolished — The Sabbath restored — Churches rebuilt, or repaired. — The letter, N. the initial of *Napoleon*, placed on the facade of the Louvre. — Many marks of the 'reign of terror' still visible. — Cities of Europe are better furnished with publick walks and squares, than those of America. — The park in Boston — a cow pasture! — Publick squares of Paris. — *Place Victoire* — Statue of Louis XIV. — *Place de la Concorde*, on which stood the statue, and scaffold of the family of the Bourbons. — Unparalleled cruelties of the revolutionists. — Character of Louis XVI. — His death. — Criminality of his murderers. — Decapitation of the queen ; the princess Elizabeth ; and the duke of Orleans. — Flight of the duke of Artois, and the king's aunts. — Imprisonment and death of the dauphin. — End of the Capet dynasty, which lasted 806 years.

MY DEAR FRIEND,

You ask — 'If the vestiges of the revolution are not rapidly disappearing ?' To this I give you, without hesitation, an affirmative reply. You know with what infuriate violence the enemies of monarchy and religion assailed the church, and the throne. It was not sufficient to degrade, imprison, and decapitate the sovereign, and his nobility. It was not enough to destroy the Sabbath, to butcher the priests, confiscate their property, and to demolish the churches, or consecrate them to the service of worse than heathen divinities. The devastating spirit did not stop here.

Many of the streets anciently bore the names of some favourite saints. Palaces, bridges, gardens &c. were designat-

ed by the term *royal*. These names were the remembrancers of religion, and of kingly government; and therefore could not be endured. Grown hateful to the pure eyes of the regenerators of France, they were all speedily revolutionized. The *Palais Royal*, the *Place Royal*, and *Notre Dame*, were made to exchange their names for the Palace of Equality, the Place of Indivisibility, and the Temple of Reason. The words *saint*, *monarch*, *royal* were every where proscribed, and obliterated.—But the infernal tornado at length spent its force. In sweeping down all that was good and great; in spreading desolation and death through one of the finest countries on the globe, its tremendous energy was exhausted; and its terrifick roar gradually died away. Though the mischiefs, it has occasioned, are not, and will not, be forgotten, or repaired, in the present age, or century, the memorials of its ravages are daily diminishing.—The new division of time is abolished—the decade is done away—the sabbath is readmitted to its place in the calendar—the goddess of reason has lost her worshippers—the churches are cleared of their rubbish, and repaired—their altars, images, and paintings reappear—religion, or its *form*, is legally reinstated.

The ancient names of streets, gardens, squares, and bridges are nearly all restored. The marks of revolutionary havoc, which lately appeared on the *Louvre*, and the palace of the *Thuilleries*, are removed. Great numbers of workmen are, at this moment, employed in repairing and decorating these habitations of ancient royalty. The south *facade* of the *Louvre* has undergone such a rubbing as to make it appear entirely new. In surveying this wonderful monument of architectural genius, from the south bank of the *Seine*, your attention is immediately attracted by the capital letter, N. which has recently been cut, in the stone;

near the top, at small, but equal, distances all along the front of the edifice. Thus Napoleon the First is kindly giving to posterity the initial of his name.

Notwithstanding these changes, and others, some of which I shall hereafter notice, you still find, in every part of the city, traces of the 'reign of terror.' On most of the publick buildings you still see the following inscription, written in large conspicuous letters.

REPUBLIQUE FRANCAISE, UNE ET INDIVISIBLE.

LIBERTE, EGALITE, FRATERNITE, and in some places the words, OU LA MORT.

The cities of Europe are, in general, much better furnished with publick squares, gardens, and other pleasure grounds, than those of America. In this species of embellishment and convenience the large towns and cities of New-England are extremely deficient. From the little attention paid to this particular, one would suppose the inhabitants believed, that neither they, nor their descendants, would ever need any other airing, than could be had by raising the windows of their houses; or any other amusement, than might be found within the precincts of their own dwellings.

What would be the surprise of a Parisian on being told, that the best, and, indeed, the only, summer promenade, which the opulent citizens of Boston possess, is, and always must be, a cow-pasture? It was on this condition, you well know, that that beautiful plat, called the park, which might easily be converted into one of the finest gardens in the world, was given to the town. The donor, with all his generosity, must have had a very singular taste. Had he taken a trip to Paris, he would, no doubt, have calculated, with great accuracy, how many cows might be pastured, or how many potatoes grown, in the enchanting gardens of the

Thuilleries, the Luxembourg, and in the *Champs-Élysées*, To be delighted with the view of a hundred cattle feeding and sporting, in the midst of an elegantly built town, supposes a fondness for pastoral life, which characterizes but few of the good people of our times.

Beside several gardens, and fine walks on the Boulevards, the French capital contains

75 PUBLICK SQUARES.

Most of them, however, are too diminutive to deserve the name. Some are spacious and surrounded by elegant buildings. A number of them were anciently adorned with statues of the French kings. In the *Place Victoire* was one of Louis XIV in bronze. "A vast winged woman, representing victory, was close behind his back," says a writer of that time, "holding forth a laurel crown over the king's head; with one foot on a globe. This I like not, for instead of giving victory, she seems to tire him with her company. The Roman Victory was a little pup-
pit in the emperor's hand, which he could dispose of at pleasure. But this woman is enough to give a man a sur-
feit." In the *Place Vendôme* was an enormous equestrian statue of the same monarch, the metal of which weighed thirty six tons. It was twenty two feet in height, and placed on a pedestal of white marble, whose elevation was thirty feet from the ground. These, and all similar, mon-
uments of monarchical pride and vanity were transformed by the revolutionary alchymists, not into gold or silver, but into cannon and other instruments of destruction.

This kind of decoration is beginning to reappear. I have already informed you, that one of the French genera-
als, who fell at the battle of Marengo, is now figuring in marble near the *Pont-Neuf*; and I should not be at all sur-

prised if the emperor himself, swollen to half the size of the Rhodian colossus, should ere long take it into his head to mount a pedestal in some conspicuous part of the metropolis.

Some of the publick squares of Paris were, during the revolution, the theatres of violence, barbarity, and death.—Here were perpetrated many of those deeds of cruelty, and of worse than savage inhumanity, which have fixed such a blot on the French character, as no length of time will be able to wipe away. The guillotine, that infernal instrument, which, at one time, was called the *national razor*, at another the *prime minister* of Robespierre, and, at another, the *regenerator of mankind*, long stood in the

PLACE DE LA CONCORDE.

This is a spacious, paved area, of an octagonal form, situated directly west of the garden of the Tuilleries. It is limited on the north by a row of magnificent edifices, ornamented with insulated columns of the Corinthian order, and terminated by two pavilions. It is separated into four parts by two streets; one running from north to south, from the Madelaine church to the river; and the other crossing it at right angles, running from the palace west, to the *Champs-Elysees*. At the intersection of these streets there formerly stood an equestrian statue of Louis XV. habited in the Roman style, and crowned with laurels. Near this honoured spot was erected the scaffold, on which the grandson, and successor, of this monarch, together with the flower of the French nobility, and many illustrious literary, scientifick, and political characters, was decapitated.—I never walk across this square, without thinking how often its pavements have been drenched with the blood, of phi-

losophers and statesmen, priests and princes, the virtuous and the vicious.

When I had read Mercier's account of some of the most horrid tragedies, which were acted here, and in other parts of the city, I threw the work from me, as a tissue of falsehoods, or, at least, of palpable exagerations. I did not believe it possible for civilized men to transform themselves, all at once, into a race of maniacs and cannibals. But I have since conversed with several persons, who were eye-witnesses of these awful transactions, and who assure me that, in this work, "the half is not told."

The relation, which a lady gave me, a few evenings ago, of her own sufferings, and of the massacres of nearly all her family, was more shocking than any thing I had before heard, or read. It drew tears plentifully down her own cheeks, and would have moved to sympathy any heart less hard than marble.

Imagining that you are ignorant, as I was, of many facts, which transpired during this period of anarchy and carnage, I shall transmit to you a few of those, which I have collected from the writings, and lips, of persons on whose narrations reliance may be placed.

On the twenty-first of January, 1793, Louis XVI. here yielded up a life, which had been rendered miserable by the ingratitude, injustice, and cruelty of his own subjects. Most of the Parisians, I am informed, were ignorant of his condemnation, till the sentence was actually executed.— The concourse of people, however, who witnessed his death was very great. Had the unfortunate monarch possessed the discernment and energy of Bonaparte, he would probably have avoided an ignominious death, and, perhaps, have been, at this moment, seated on the throne of France. He had many virtues, but they were virtues fit for other times.

His disposition was mild, peaceful, and forgiving ; but he had no force of character. He was unable to check the dissensions that sprang up in his own family. He was irresolute and changeable, when he ought to have been bold and inflexible. To day he mingles with the multitudes at the *Champs de Mars* ; hears Talleyrand read mass, and takes the oath to support the constitution, which he secretly detests. Tomorrow he repents of what he has done, and opposes the decrees of the National Assembly.

Given up to the guidance of others, he was himself too inattentive to the affairs of the state, and to his own danger*. While the Assembly were voting the abolition of the titles of *majesty* and *sire*, and every day abridging his power, he was engaged in the amusements of the palace, or hunting with his parisites at Marley. It needed no supernatural discernment to foresee, that that spirit, which was daily encroaching on his prerogatives, and insulting his authority, would, if not repressed, finally effectuate his ruin. He was patient under present calamities, and blind to the future.

Suppose incendiaries were setting fire to your dwelling, and you paid no attention to it, or rather used such feeble and improper exertions to extinguish the flame, as only

* The most dispassionate narrators of the revolutionary events all agree in asserting, that an immense majority of the Parisians were far from desiring the death of the king. Lacreteille says that they, "regarded this sacrifice with horror ;" that many of those, who attended the execution, returned home, sad, absorbed in thought, and shut themselves up in their families to weep :—that during the whole day Paris was silent—its streets were deserted except by the "bands of robbers who by their barbarous songs and dancing expressed fury, while they wished to imitate joy."

served to increase it, till it got beyond the power of control. Could you then remain inactive, while seeing the timbers falling and crushing your children and domestics to death, and ready every moment, to involve you in the common destruction, and satisfy your conscience with a "*Whatever is, is right*". Such was the part which Louis acted.

There are many circumstances, which lead me to fear, that the tranquility, which he showed in the midst of his misfortunes, and which the world has so much extolled, arose more from stupidity, or from an ill-grounded hope that he should not fall a sacrifice to the rage of his enemies, than from a willing submission to the determinations of heaven. It is evident, that he had to the last some expectation that his life would be spared. When his sentence was read, he appeared to be disappointed, and, Mercier declares, (but Mercier was his enemy,) that he flew into a passion. The last consolatory words of his confessor—'Go, son of St. Louis, ascend to heaven,' did not calm his perturbed bosom, or diminish his dread of death. On the scaffold he struggled so hard with the executioners, that the fatal knife, instead of falling on his neck, cut through the back part of the head, and severed the jawbone. Thus died one of the most amiable of men, but one of the most unfit to stem the torrent of revolutionary misrule.

Do not suppose, that in drawing this sketch of the king's character, I wish to palliate the conduct of his murderers; and murderers I consider not only those, who beheaded him, but all who voted his condemnation. Never, perhaps, were men, unless we except the crucifiers of our blessed Saviour, guilty of a greater crime. It was the double crime of the worst of treason and of the basest ingratitude; for many of them the king had loaded with personal favours. The guillotine has sent most of these regicides to

account for their conduct at the bar of impartial justice.—And those, who survive, though some of them are now basking in the sunshine of imperial favour, will soon be arraigned at the same tribunal.

The queen met her fate with more fortitude. She was not allowed a carriage, but was dragged to the place of death, in a common cart. ‘She was dressed,’ says one, who saw her, ‘with simplicity and taste.’ She fainted on the scaffold; but no mercy was shown her; she was in the hands of those who thirsted for her blood; the horrid machine did its work.

Elizabeth the king’s sister, who her enemies acknowledge, ‘had no other crime than that of her birth,’ shared the same fate. The duke of Orleans also expired on the scaffold. The duke of Artois made his escape to England, where he is supported by the government, and occupies apartments in the palace of Holyroodhouse at Edinburgh. The king’s aunts fled to the pope for protection, but the pope, being soon unable to protect himself, dismissed the fugitives to seek an asylum elsewhere. The dauphin, or prince royal, you probably recollect, died in the Temple. He was six years old at the time of his confinement. The *Commune* appointed a cobber, a profane wretch, to be his sole tutor and governor. The only business of this fellow was, to teach the young prince to swear, curse his father, call his mother by the vilest names, and to cry ‘long live the Sans-culottes.’ Some assert that, his death was occasioned by a schropulous complaint, and others that he was poisoned.

Thus was destroyed and dispersed the royal family of France, which, but a few years before, had been almost

adored by the whole nation*. Thus ended the Capet dynasty, which had existed eight hundred and six years.

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LETTER XVI.

Paris, 23 September, 1807.

Robespierre—His atrocious and unprovoked cruelties.—His plan for consolidating the republick.—Horrible massacre in the Parisian prisons.—Mock tribunal.—Assassination of the clergy.—The princess Lamballe ; one of the most amiable of her sex.—She was killed with bayonets—her heart torn out—her head cut off and carried through the streets on a pole.—The hearts of some of the victims were broiled on coals and presented to their friends.—Many of the adherents of Robespierre accompanied, or followed him to the scaffold.—Samson, the executioner.—The guillotine is now secluded from the publick view.

.....

MY FRIEND,

I LEFT you yesterday on the *Place de la Concorde*.

*When Moore wrote his "View of Society and Manners," the attachment of the French nation to this same monarch and his family was excessively strong. "If he happens to be a little indisposed," says this inimitable journalist, "all Paris, all France, is alarmed as if a real calamity was threatened. At a review, the troops perform their manœuvres unheeded by such of the spectators as are within sight of the king. They are all engrossed in contemplation of the Prince. At mass, it is the king ; not the priest, who is the object of attention. The Host is elevated but the people's eyes remain fixed upon the face of their beloved monarch. This excessive attachment extends to every branch of the royal family."

On this spot, which has drunken in the blood of Louis and his family ; of the noble Malesherbes, and a hundred other illustrious personages, who deserved a better fate ;—on this spot, Robespierre, that demon in human form, expired under the knife of the guillotine. With his life he made but a sorry atonement for his numberless crimes. His atrocities surpassed those of Nero, or Caligula. He mowed down, unprovoked, multitudes of persons, of all ages, characters, and sexes. Being once asked, what bounds he intended to put to his proscriptions, he calmly replied, ‘That all who had seen the old government would regret it, and, therefore, every individual, who was more than fifteen, at the commencement of the revolution, must be sacrificed in order to consolidate the republick.’ He had unhappily proceeded very far in the accomplishment of his execrable purpose before ‘his measure of iniquity was full.’

He was, no doubt, one of the principal instigators to the massacre of the prisoners on the memorable second of September 1792. During two, or three weeks, the number of prisoners had been augmented almost daily, by hundreds of persons of rank, fortune, influence, and worth, who were arrested, says a writer of the time, ‘without any legitimate motive, without denunciation, and without any trace of a crime.’

On the morning of this day the attention of the Parisians was, designedly, turned towards the Prussian army, which it was falsely reported, were advancing into the heart of France.—This was the appointed moment for attack. The tocsin sounded ; the alarm cannon was discharged ; and a band of ruffians, armed with sabres, and furnished with proscription-lists, marched to the prisons, and broke open the doors. A mock tribunal was created in each prison ; a table, covered with bottles, and lists of the names of the in-

tended victims, was surrounded by half intoxicated judges. All, who were on the death-rolls, were called from their gloomy apartments to the tribunal. The judges put to each of them, the question—‘who are you?’ and, scarcely waiting for an answer, delivered them over to the assassins, who led them to the door, and there massacred them in cold blood.

In one of the prisons were confined two hundred and fifty priests, among which number were the archbishop of Arles, the bishops of Beauvais, and of Saintes, with many others of the most respectable and pious of the French clergy. They were all murdered but two or three. A part of them were killed with muskets, but on being told by the females who flocked in crowds, to witness the horrid scene, that this method was too noisy, the assassins, through politeness to them, dispatched the rest with sabres and bayonets.

The same carnage was extended to all the prisons. At the one called *la Force*, was confined the princess Lamballe. This lady was known to all Paris by her amiable manners, and by her constant and successful endeavours, to feed the hungry, clothe the naked, and relieve distress in whatever form she found it. She had never been denounced, or censured in any of the publick papers, or hand-bills.—When she was brought before these terrifick judges, a hundred voices were instantly raised to plead for her pardon. Even the assassins hesitated for a moment, whether to strike, or withhold, the fatal blow. But they did not hesitate long. For, as if angry at their momentary relenting, a number of them rushed forward at once, and plunged their bayonets in her body. She fell lifeless. Her head and breasts were cut off, her body opened, her heart torn

out, her head stuck upon a pole, and borne through the city, and her body dragged after it.

One of these barbarous wretches carried to a lady, on the end of a pike, a human heart, which appeared to have been just broiled on the embers, and presenting it to her said, "Madame, you may eat it with safety, for it is the heart of your uncle ! !" Hundreds of instances of similar barbarity might be enumerated, but the subject is too shocking to dwell on. I have said enough to give you some idea of the extent to which the French people carried their 'love of liberty.'

Most of the satellites of Robespierre accompanied, or soon followed, their leader to the scaffold. Twenty two were guillotined at the same time with him, and seventy more the next day. Samson, the chief executioner in Paris, had become, by long experience, so astonishingly expert in managing the machine, that these seventy persons were all decapitated in the short space of twenty five minutes.

That period of the revolution, which is emphatically called the 'reign of terror,' closed with the downfall of Robespierre.

The Parisians are now under so good control, that the continual sight of the guillotine is no longer deemed necessary to terrify them into their duty. It is secluded from publick view, and never seen, unless at the time of the execution of criminals. These executions, which in consequence of the vigilance of the police, are very infrequent, always take place at the *Place de Greve*. Should any unhappy delinquent be sent into eternity in this way, during my stay here, it is probable, that curiosity will lead me to become a spectator of the execution.

[We have derived much pleasure from a perusal of the following interesting paper, and are unwilling to deny ourselves the gratification of presenting it entire to the readers of the *Repertory*. It is copied from the first volume of the "New-England Journal of Medicine and Surgery"—a periodical work, of high, and increasing, excellence, published in Boston. Some of the sentiments conveyed in the ensuing communication are novel, at least to us, and are, we believe, in perfect opposition to the popular and almost universally prevalent notions in respect to the subject of bathing; but, we imagine, they will be found, generally to be correct. Of the immense utility of frequent bathing, especially, in the warm months of summer, we have abundant proofs from our own experience. To persons of studious, and sedentary, habits the practice is nearly indispensable.]

REMARKS ON COLD BATHING.

BY J. G. COFFIN, M. D.

IN the course of these remarks, which are intended for the well only, I shall notice some of the causes which have prevented a more general use of the cold bath; assign the rules by which it should be conducted; and add something concerning its advantages.

The idea of plunging into cold water, or of applying it to the surface of the body, is to most people quite formidable, and this fear attended with doubts of its utility, is sufficient to deter many from trying it. Some individuals have not given a thought on the subject; others have bathed under improper circumstances, have been injured in consequence, and will bathe no more; while a small proportion only of the inhabitants of New-England have understood the theory of bathing, and have practised it with equal pleasure and advantage. And yet it must be admitted, that ablution in some form or other, is incumbent on all who think health worth preserving, or who would move in

a pure atmosphere. It may be said too, as a cause of the neglect of this practice, that even physicians, till lately, have but little attended to this great means of cleanliness and health, and that they have afforded but slender instruction or encouragement to those inclined to adopt it.

It has been, and still is, a very prevalent sentiment, that we must not go into cold water when warm, but must wait till we are cold before we bathe. So fundamental and important is this error, that cold bathing will never become a general or popular practice, because it can never be a safe one, till it is completely corrected and exploded.

How has it happened that certain persons who have bathed under every favourable circumstance, excepting that only of temperature, have been injured? Because they have gone into the water when they were cold.

In all these instances, had the animal heat been raised by exercise to a genial warmth before the operation, the effect would have been not only safe, but exhilarating and tonic. It is a familiar fact, that a certain degree of heat is necessary to support life, and that a higher degree is requisite for health. Successive subductions from this heat are followed by inconveniences, disease, and ultimately, death. Cold bathing is at first, and for a short time, a cooling process, and the mischief from going cold into the water arises from such a reduction of temperature as disturbs or, for a time, suspends, those operations of the system on which the evolution of heat depends, and thus, prevents that reaction, that glow of warmth, which is at once the attendant and proof of salutary and refreshing bathing. Where there is a tolerable share of strength and a suitable elevation of temperature, it is believed that this reaction never fails to take place. If it should be asked, whether heat on the other hand, may not mount too high to admit of bath-

ing in safety? I reply that it seems never to do so unless it arises from a degree of exercise so violent as to derange at the same time the important functions of the circulation and breathing. I would not, for instance, advise a man who from a furious contest at cricket, running, or any other excessive exertion had raised his temperature to 106 or 108 degrees, accompanied with a feverish rapidity, and fulness of the pulse, and an almost convulsive respiration to dive into the sea; but I could assure the same man, that if at another time his heat should ascend to the same height from common walking, under a meridian sun, that nothing else would so soon reduce him to the standard and sensations of health; from which the only deviation in his case would be, excess of temperature.

The first *rule* then to be observed in taking the cold bath is, *not to go into the water when cold.*

For several years past from May to November, I have been in the habit of walking or riding on horseback freely till 12 or 1 o'clock of the day, hastening to the water's edge, and plunging in with the least possible delay; and in no instance have I regretted the habit, but on the contrary have found it alike grateful and invigorating. On many of these occasions, as must be supposed, the temperature of the body was very considerably augmented, both from exercise and atmospherick heat, and sometimes there was a free perspiration. But while the body remains strong and an elevated temperature is sustained by a continued operation of the calorific powers of the system, pretty free sweating *at its commencement*, forms no objection to cold bathing in my opinion.

But when at the close of the labourer's day, the strength has been exhausted by uninterrupted exertion, and the heat of the body has been dissipated by long continued per-

spiration, nothing could be more hazardous than the *cold*, or more refreshing than the *warm* bath.

The cold bath should be taken before meals, when the stomach is empty.

Judging from the testimony of others, as well as from my own experience, I should recommend the hour before dinner as the best time for bathing.

The open beach is preferable to the dark and narrow limits of most bathing houses, excepting only the want of a screen from the rays of a scorching sun.

Great solar heat acting on the body while dressing, considerably lessens that refreshment which would otherwise continue to be longer felt, after performing this indispensable part of the regimen of health.

The last rule I shall offer is, *to stay but a short time in the water.* The first effect of the application of cold water, to the skin, is to constringe the vessels on the surface, and to propel the blood to the centre of the body.

The organs of the circulation, roused to increased action, by an augmented influx of their appropriate stimulus, send back the blood to the surface, producing heat and redness of the skin.

But should the bather remain in the water, not only till this reaction had taken place, but till the attending warmth, should be imparted to a colder medium, than that we inhabit, he would return from it chilled and shivering, and without great care and activity, in regaining his lost heat, by warm clothing, brisk exercise, &c. he would be exposed to much suffering, for his temerity. Many boys, and indiscreet persons, are every year injured in this way. To plunge two or three times, and to remain in the water one or two minutes, is abundantly sufficient, for all the good purposes of cold bathing.

The luxury, the delightful effects, and even the moral tendency of bathing, have been long since noticed, and recorded; but instead of laying this evidence before the reader, I content myself, rather with the suggestions of reason, and the more recent testimony of experience, to sanction the practice I commend. The grateful sensations, the refreshment, and renovated vigour, corporeal, and mental, which result from the cold bath, rightly managed, are more easily recollected than described.

One of the most prolific sources of disease, in this climate, are the frequent and great variations of our weather. Whatever therefore, can diminish the susceptibility of the human fabrick, to be thus injured, must be extensively useful. This morbid susceptibility, or tendency to disease, is accumulated by too much cloathing, and a sedentary life, in heated apartments; it is destroyed by frequent exercise in the open air, and in a remarkable degree, by cold bathing.

As a successful familiarity with danger, enables the mind to surmount the influence of fear, so the greater, more sudden, but transient impressions from the resources of art, enable the body, to pass unhurt, through the less rapid, but incessant fluctuations of a variable sky. When the feet, for example, in winter suffer so severely from cold, as to render the whole system, restless and uneasy, and to invite disease, the pain and danger are entirely removed, by rubbing them one or two minutes, in cold water or snow, covering them with woolen hose, and walking till they become thoroughly warm. After a little discipline, this experiment will be pleasant, and the feet are not then easily incommoded, nor health impaired, by wet or cold applied to them. The best time, for this local bathing, is on rising from bed. In the same manner, immersion in cold water,

counteracts the morbid susceptibility of the whole body.

Many people who experience sickness, from *taking cold*, are led by a false association, to consider cold, as a morbid agent only, not recollecting that cold air, or cold water, modified by different circumstances, may either excite, prevent or cure disease. The want of this discrimination, has prejudiced many against cold bathing. Every body knows, that cold, in some of its forms, or combinations, occasions many deviations from health, and it is equally true, that cold bathing, may be made to prevent, or cure, almost half the catalogue of the nosologists. In the periods of ancient simplicity, before the charms of nature had given place to the illusions of art, it was believed, that innocence and health, constituted the principal attractions of personal beauty, and it was justly inferred, from what was even then known of bathing, that all who would improve these separate attractions, or preserve their enviable union, should visit the ocean. Hence the mythologists represent Venus, as deriving her origin from the sea.

This is doubtless, the best cosmetic, and the only one we would recommend.

The same facts and reasoning, which explain the character and influence of temperature, in relation to the cold bath, furnish the only correct theory, respecting the drinking of cold water. So long as the strength of the body, remains unimpaired, and the important offices of breathing, and the circulation of the fluids are steady, and regular, cold liquids may be taken into the stomach, with the greater freedom, in proportion to the increased temperature and dryness of the skin.

According to my observations, after having made a free use of ice, in water, and fermented drinks, for a series of years, I should say, that if cold water could ever do harm,

as a beverage, under the circumstances just mentioned, it must be from its quantity, and not its coldness; even this accident, however, I have never heard of, nor experienced, though it may happen.

Another misconception, connected with the influence of temperature on health, is constantly operating, and producing deplorable effects. To persons about to leave a warm apartment, particularly females, the direction is, to cool themselves before they inhale the outer air, in order to avoid the ill consequences of a too sudden change of temperature.

This direction is the reverse of what ought to be inculcated, and is well suited to produce the evil, it is intended to prevent.

In what manner are persons usually made sick, by returning from the ball-room, or a warm parlour, in a winter evening? Undoubtedly by being exposed to a degree of cold, of sufficient intensity and duration, to induce disease. This is to be avoided by carefully cultivating a good share of heat till we set out, and by supporting it, while in the air by warm clothing, active exercise, or both. No one in health was ever injured by passing through the cold night air, so far as temperature merely is concerned, who came into it while warm, and with the means of preserving this warmth to his own house.

When about to be exposed to the certain loss of more or less heat, we should cherish and preserve this essential property of health, that we may be in a condition to part with some and yet retain enough of it to secure us against the approach of disease.

Extract of an Eulogy on Dr. Benjamin Rush, pronounced at the annual Commencement at Middlebury College, 18th August 1813, by Mr. Abiel P. Mead.

TRIED by the test of moral and intellectual excellence, the character of Dr. Benjamin Rush, late professor of Medicine in the university of Pennsylvania, is unrivalled. *He stood on an eminence and glory covered him!* To do justice to his character, would, indeed, be impossible to any pen, not inspired with his own spirit. But the difficulty does not, as in the delineation of many great characters, consist in the necessity of describing virtuous actions, that were never performed, voluntary privations, that were never borne, piety that was never felt, and, in a word, a life that was never lived. Though his sun has set in glory, yet, like blessings departing never to return, it sat to us in gloom. Though his benign and exalted spirit, unchained from earth, has soared into the heavens, a nation is left in mourning.

It is not the torn bosom of the solitary individual, that is doomed to bear alone, the pangs of parting grief—it is not the social circle—it is not the band of brethren alone, united in the same dignified and favourite science; the deep and melancholy groan “Rush is dead!” “Rush is no more!” is wasted through America on the sighing gale, and sends its murmurs through the nations of Europe.

Dr. Rush was born in the vicinity of Philadelphia, December 1745, and received his degree of bachelor of arts at the College in New-Jersey. After six years spent in his professional studies with Dr. Redman of Philadelphia, he resorted to Edinburgh, where he was graduated as Doctor of Medicine, in 1768.

It was the distinguished felicity of basking in those concentrated exhilarating rays, that beamed with such ef-

fulgence from Monroe, Duncan, Gregory and Black.—About this time a new era was to commence in Medicine; the mists of traditional error were about to be dissipated. The genius of Rush was awakened, and mounting on bolder and more rapid wing, he left jealousy, envy, and malice to return, tired and jaded, from pursuing.

Modest and unassuming, but firm and indefatigable in the defence of correct principle, he opposed himself to that temporising moderation, which, under the pretence of peace and candor, makes a willing sacrifice of truth. "It is our duty" said he, "to live in peace with all men; but when this cannot be effected, but at the expence of truth, and the lives of our fellow creatures, our obligations to preserve peace are cancelled and destroyed." The emperor and the dogmatist were confounded at his presence. He examined and exposed to the light of truth, those errors, which had first been received without examination and afterwards consecrated by the illustrious names of Linnaeus and Vogel—Stahl Boerhaave, Cullen and Brown.—Perhaps no individual has done more in the improvement of medicine either of ancient or modern times.

Having entered a profession in which talents, science, pity, benevolence—all the noble, as well as the more refined virtues should be engaged, Rush found a wide, inviting, delightful field, for all those excellencies—for all those excellencies were his. It was not a field of violets, or amaranthine flowers, of fine prospects, of freshening cascades, of gently murmuring rills, or whispering gales—these are the creation of fancy.

But it was where pity's child delights to linger, to wipe from the sunken eye and hollow cheek, the chill, cold damp of death. It was where the "strong man by stronger arm belabored" gasps for breath. It was where the infant,

lately smiling in its mothers arms, is now struggling in the grasp of the destroyer. It was where the wretch, the votary of vice, was writhing at the feet of her altar.

There are many, who make great pretensions to benevolence, that know not how to pity, console, or alleviate him, who has purposely, or inconsiderately, stepped aside from the path of virtue; but Rush, the immortal Rush, while he applied his medical aid, gently led the wanderer back; thereby imitating the divine example, and illustrating his own invaluable sentiment, that, "evil can finally be annihilated, only, by being forgiven."

During the prevalence of the yellow fever, which raged in Philadelphia in 1793, when the unrelenting man-destroyer, death, was making his horrid and indiscriminate ravages, Rush "came forth like another Achilles, rallied the hopes of a desponding city, vanquished the destroyer of his fellow creatures, and dragged him in triumph at his chariot wheels*." The chill damp of evening, the noxious vapor, the loathsome apartment of expiring wretchedness, prevented him not from reaching out the cup of healing to the meanest of his fellow citizens. Men are often benevolent from vanity, self-interest, or ambition, but Rush was benevolent in opposition to the world's *dread laugh*.

Sweetly did the incense of his charities ascend to God.—Sweetly shall their remembrance cleave to the bosom of the widow and the orphan.

On his return from Europe, he was chosen professor of chemistry in the College of Philadelphia 1769.—Some time after the declaration of Independence, he was appointed physician general in the army. In the year 1789 he

*See his own description of Sydenham, during the plague in London.

was elected professor of the theory and practice of physic in the College of Philadelphia. His principal works are four volumes of *Medical Inquiries and Observations*; a volume of *Introductory Lectures*; *Sermons to gentlemen on temperance and exercise*; a volume of *Essays, Moral, Literary and Philosophical*; and a volume on the diseases of the mind.

The character of Dr. Rush affords an admirable example of the union of piety and talents. It has been asserted, and by many believed, that the profession of medicine tends to infidelity. Men, whose minds are of ordinary mould, and, at the same time, diseased with vice, every where find temptations to evil. If the study of the mechanism of the human body, if the investigation of the works of the Almighty, lead to infidelity, then the contemplation of the verdure of the fields, the growth and decay of fruits and flowers, the thunder rolling in the heavens, the revolution of the planets, with all their phenomena, is poison, and pestilence to our moral faculties. But the beauty, the harmony, the wisdom, which appear in nature's works, certainly have a tendency to lead us with wonder and admiration to the great author of them all. **RUSH WAS A CHRISTIAN.**

The patriot, the scholar, the philanthropist, the pre-eminent physician was a meek, a humble christian. "Deo adjuvante" dwelt upon his lips, in all his prescriptions, in all his instructions. He rejoiced, that he could name as christians, the most eminent physicians that have ever blest the world. Hoffman, Haller, Hartley, Boerhaave, Stahl, and Sydenham, he exclaims with enthusiasm, were not ashamed of the gospel of Christ. He taught with a sublime, a persuasive eloquence, lessons of science tempered with the deepest piety. He taught, that physical and moral evil, began together, that together they will decline;

and that we have the same reason, to expect a millennial deliverance from the one as from the other. But addressing his students with affection, he adds, "Long, long, before this revolution in the health and happiness of mankind shall arrive, you and I, gentlemen, must sleep with our fathers in the silent grave."

When entering on his last course of instructions, he remarked to his students, that he was deeply impressed with the presentiment, that it was the last course of Lectures he should ever be permitted to deliver. "The time of my fading is near, my years, my infirmities admonish me, that my departure is at hand." The event has verified the opinion. *He dies!* and emerging from his clay, with angelick powers, he seeks the face of his Father in heaven.

INTELLIGENCE PHILOSOPHICAL AND MISCELLANEOUS.

THE PRESSING MACHINE.

A new application of mechanical power was lately made in St. James's Park. The pressing machine of that truly ingenious artist Mr. Bramah, was brought to act on a level in such manner that two of the largest trees in the Bird Cage Walk were torn out of the ground, with their roots to a considerable depth, in about ten minutes. The same trees could not have been felled, and their roots dug up to an equal depth, by two men in less than four days, and the waste of timber would have been equal to the value of the labour.

Ch. Cöserver.

SAWING IRON.

Messrs. Millington and Co. at the Foundry at Hammersmith, lately tried the experiment of sawing cast-iron at a red heat with a common saw. A bar of an inch and a half diameter was sawed through in the time of a similar piece of oak, and without prejudice to the saw.

The same manufacturers have lately invented a mode of painting iron in imitation of marbles, for chimney-pieces, and other architectural ornaments. The similarity is so close as to challenge the most accurate inspection.

ib.

VACCINATION.

The foreign journals mention that Drs. Aubon and La font, physicians at Constantinople and Salonica, have discovered that vaccination is a preservative from the plague.

Of 6000 adults vaccinated, none caught the contagion; even infants, who were vaccinated, continued to suckle mothers who were labouring under the attacks of the plague, without being infected.

ib.

UTILITY OF STEAM.

Mr. Curwen of Workington Hall, has for many years prepared the food of his cattle by steam. He puts the food into wooden boxes, into which he turns the steam by means of separate cocks. He feeds each milch cow as follows:— with steamed chaff, two stone, 1d. ; oil cake, four pounds, 4d. ; eight stone of turnips, 4d. ; wheat straw, 1d. ; or ten-pence per day. Each cow yields in return, for 320 days, thirteen quarts per day, at 2d per quart. Cut hay, steam-

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ed, would, he says, be an excellent substitute for chaff and oil-cake. Near London he thinks they might cost 2s. per day, fed on this plan, and produce twelve quarts per day at 4d.

ib.

The plan for heating the West Church of Aberdeen by steam, formed by Mr. Robertson Buchanan, civil engineer, has been executed, and gives perfect satisfaction. The fire is put under the boiler on Saturday evening, and continues until the congregation meet at the afternoon sermon. The steam-heat keeps the church from 46 to 48 Fahr. and the presence of the congregation raises it to 50 or 55. The printing-office of the Glasgow Chronicle, and some other workshops and manufactories in that neighbourhood have been heated in the same manner.

ib.

DAVY'S ELEMENTS OF AGRICULTURAL CHEMISTRY.

The celebrated chemist Sir H. Davy has published an extensive experimental and scientific work on Agricultural Chemistry. He has instituted an examination of the general powers of matter upon vegetation, whether gravitation, cohesion, chemical attraction, heat, light, or electricity.—He has minutely investigated the organization of plants, the constituent parts of soils, and the nature and constitution of the atmosphere with its influence on vegetable life. An extensive experimental inquiry is made into the product and nutritive qualities of different grasses and other

plants used as the food of animals.—An American edition of this work is shortly to appear.

N. Eng. Jour. of Med. and Surg.



Articles copied from the Western Gleaner.

CLAY NEAR PITTSBURGH.

A species of clay has been lately discovered in the neighborhood of Wilkinsburgh, on the land of Charles Wilkins, Esq. which seems to be superior in many respects to any other, that has been found in the vicinity of Pittsburgh.— It contains alumina and silica in a minute state of division. No lime could be discovered in it, and only a very small quantity of iron with a trace of magnesia was detected.— It was exposed to a heat of melting iron, or 130° of Wedgewood's pyrometer, without either melting or cracking.— From these data we may conclude, that by means of a proper mixture, excellent fire-bricks might be constructed with it. The smoothness of the surface which it assumes, and its power of cohesion would most probably render it fit for the manufacture of queensware, and at any rate, we may expect to obtain from it a pottery-ware that will stand the fire, which is a great *desideratum* in our domestic economy. The quantity of sand which it contains renders it unfit for glass-house crucibles.

OXYD OF MANGANESE.

Native oxyd of manganese is found near Lancaster, and in Northumberland county, Pennsylvania, and in the state of Virginia. It is often combined with carbonate of lime,

in which case the gas procured from it, will be contaminated with carbonic acid gas. A specimen of oxyd of magnesia of a superior quality from the district of St. Genevieve, Louisiana, is in the collection of the Editor.

EMERALD.

This Mineral is by no means uncommon in the United States. It occurs in the primitive range, and particularly in Granite, in which it is imbedded. In the District of Maine it has been found remarkably clear and transparent, and in every respect resembling the *Siberian Beryl*, particularly that discovered at Topsham, by professor Cleaveland of Brunswick College, the crystals are well defined hexagonal prisms, and are often imbedded in the smoky quartz which abounds in the large grained granite: in some instances, in point of colour, it equals the finest Peruvian Emerald.

At Chesterfield in Massachusetts it occurs in great abundance. Dr. J. F. Waterhouse who has carefully examined this locality, informs us that crystals, in hexangular prisms, from an ounce and under, to 6lbs. in weight are found singly disseminated through the granite. They are of various dimensions, from a small size to that of a foot in diameter, their colour light green. The Chesterfield Emerald greatly resembles that lately discovered in France. If the new earth *Glucine* should be required for the arts or manufactures, this Emerald would furnish it in abundance; as such is the quantity occurring at this place that Dr. Waterhouse obtained upwards of 70lbs. within a very small space.— The Emerald occurs in other parts of Massachusetts. To the politeness of Dr. David Hunt we are indebted for sev-

eral specimens found by that indefatigable mineralogist, in the vicinity of Northampton and Goshen.

At Haddam in Connecticut this mineral occurs in abundance, the crystals are from a very small size to several inches in length; they are generally of a light yellowish green and sometimes of an amber colour resembling Topaz. Colonel Gibbs has in his possession a crystal of a deep green an inch in diameter and several in length, it bears a strong resemblance to the peruvian Emerald. Mr. Mather, a young mineralogist of great promise, discovered one seven inches in length by nine inches in the diagonal diameter, it is in the cabinet of Professor Silliman.

New-York affords but few instances of the production of the Emerald. It now and then, though rarely, occurs in the granite veins which traverse the gneiss on the Island, about four miles from the city.

The Emerald is found in the vicinity of Philadelphia and at Chester. These are the principal localities of this mineral in the United States which have as yet come to our knowledge. As others occur, we shall with pleasure notice them.

American Mineralogical Journal.

THE WESTERN GLEANER.

We have recently received three numbers of a monthly magazine, bearing the above title, and published at Pittsburgh, in the western section of the State of Pennsylvania. It is composed, in part, of selected; and in part, of original productions, and possesses, in our estimation, a considerable degree of merit. Two, or three articles, which we have hastily perused, have afforded us a rich mental banquet, and we intend, in the next number of the Repertory, to

give our patrons an opportunity to share with us some portion of the entertainment. An attempt to cherish in the bosoms of the inhabitants of our western country, a fondness for the sciences and arts, is truly commendable, and we most heartily wish success to the undertaking.

THE MEDLEY No. VI.

Variety's the very spice of life,
That gives it all its flavour.

COWPER.

MESSRS. EDITORS,

The following is an extract from a poem written at Ballston in 1805. As far as my information on the subject extends, but few original copies of the work are, at present, in circulation. Should you deem it worth inserting in the *Repertory*, it will afford gratification to at least one of your readers.

BALLSTON SPRINGS.

Whence come those crowds that throng the vale below ;
What healing virtues from the waters flow ?
Can they give solace to heart rending care
Or smooth the features of confirm'd despair ?
Can they sweet peace of mind, once lost, restore,
And bid the sting of conscience gall no more ?
Tell me the virtues of this healing spring,
That bids such crowds attend on hope's soft wing.

Not the diseases of the meaner mind,
Claim most th' attention of the human kind ;
Were these rich springs but fraught with mental good,
That peopled vale were still the desert wood.
Unused to search the inner man's disease,

In love with temporal health and worldly ease,
We leave the Fountain that renews the soul,
And fly to drink what makes the body whole.

Nature, endow'd by Nature's God, contains
A simple remedy for Nature's pains ;
And wisdom infinite, with bounty join'd,
Has to each clime its needful balm assign'd ;
Here from the solid Rock, a fountain flows,
A rill of mercy lessening human woes ;
Oft has it eased rheumatic torturing pain,
And made the lep'rous skin shine smooth again ;
Removed the load of life destroying bile,
And to the languid eye, restored health's smile :
The Cripple here hath found his limbs again,
Thrown down his crutch, and bounded o'er the plain.
Such are the virtues of those healing springs,
To which the sick resort on sanguine wings.

To hasten hither, if the truth were known,
The Springs are not th' inducing cause alone ;
Many who leave the city's buzzing scene,
Come not for health, nor with an ulc'rous skin ;
The change of scene, and company they try,
Not from disease, but from themselves to fly.
So constituted is the human mind,
With strong desires, and feelings so refin'd,
They search for pleasure from terrestrial good,
Tho' ne'er with power to fill the mind endow'd :
From source to source, they're ever prone to range,
Till habit stamps them with the love of change ;
From place to place, they run th' eccentric round,
But peace and ease are no where to be found.

Some Idlers come with talents misapplied,
The foes of industry, but slaves of pride ;

The slow, but surest course to win the prize,
 These men of honor, with true taste, despise ;
 With pockets light, and consummate address,
 Into the fashionable world they press,
 Some youthful heiress' artless hearts to steal,
 That they may waste their fortunes at their will ;
 Or on the velvet plain, with cards and ball,
 Rob unsuspecting victims of their all ;
 Guile in their heart, and flatt'ry on their tongue,
 They court the old, and fascinate the young ;
 Perverting talents to this vile abuse,
 That might their country serve in proper use.

AVARUS see, who learn'd in early days
 To love the Cash, and practice saving ways,
 In hopes that once possess'd of ample gain,
 The perfect Heaven of bliss he should attain ;
 Quarrell'd with many, fought his Conscience down,
 And gave his care-worn brow a constant frown.
 Without a friend, but friends constrain'd by fear,
 Despis'd on Earth, though all his bliss is there,
 With wealth acquired, and yet his hopes deceived,
 From scenes where ever grieving, and aggrieved,
 He feels the burning fever at his heart,
 He seeks the Springs, his anguish to divert.

COMMODUS visits here ; his manners mild,
 And fortune on his honest labors smil'd ;
 Kind to his family, benev'lent to all,
 He seems to taste Life's honey, without gall :
 But yet his Soul, 'midst affluence and ease,
 Still finds this world inadequate to please :
 Though mirth abounds, he heaves the secret sigh
 For absent good, he knows not what, nor why ;
 Unconscious of this cause, ill understood,

Th' immortal Soul must have immortal food ;
 It knows no peace but from the smiles of God,
 Only on man, thro' faith in Christ bestow'd.
 Commodus thus, without the oil of grace,
 Searches for happiness from place to place,
 In vain his search—soon mingled with the dead,
 In dust his body, and his hopes are laid.

POLITICUS attends, in pomp to shine,
 And fathom Wisdom with his sounding line ;
 With air superior, and with high-swon speech,
 The art of government to fools he'll teach ;
 Nay more, like Alexander fam'd of old
 (In governmental theories grown bold,) 1814
 He soars from earth, he grows to such a size
 And scans the politics of earth and skies ;
 Informs you that, tho' Priests make such a clatter ;
 About a God, there is no God but matter ;
 The Sun, the Moon, the Stars are not such elves
 But they have sense to manage for themselves ;
 And to this Planet which we live on, Earth,
 Chaos, with one convulsive pang, gave birth ;
 And ever since, she's reg'larly gone on,
 As long experience to mankind has shown.
 Thus, having settled earth, and seas, and skies ;
 Profoundly deep, immeasurably wise,
 With port of majesty, and mighty stride
 He walks ; made up of weakness, madness, pride.
 Thus may the Creature *live* but brought *to die*,
 His right hand shall be found to grasp a lie.

Here for some weeks esteem'd ALBANUS stays,
 Kind his affections, just in all his ways ;
 He loves what's right, true honesty reveres ;
 And proves himself just all that he appears.
 He loves society ; society loves him,

This fills his glass much oftener to the brim
 Than he could wish—from what the world requires,
 He for a season, to the Springs retires :
 There in sobriety, and peace he lives,
 And the respect, which is his due, receives.
 Why cannot men of fortitude decline
 As they do other sins, excess in wine?
 Religion only fortifies the heart,
 To keep the law of God in every part.
 Lamented Hamilton ! thy country's boast,
 For want of Christian courage thou wert lost ;
 Right were thy views, thine hand abhor'd the deed,
 It dared not make a fellow mortal bleed,
 Yet was thy conduct almost suicide.

Here there are some to love, and to revere ;
 The venerable old, the sprightly fair ;
 The man of modest worth ; the man of wit ;
 The youthful heart, where truth and honor meet ;
 And as we see in Life's promiscuous band,
 Some, in just eminence, distinguish'd stand.
 Oh ! that in places of genteel resort,
 Wisdom, and truth, and virtue held their court !
 Wit and amusement might together join
 To romp in bounds, that prudence should assign,
 Humour should own discretions kind controul,
 And pure Religion sanctify the whole.

The bulk of strangers, are a thoughtless fry ;
 They come to Ballston, but they know not why ;
 They came, they think, amusement here to find,
 But feel amusement has been left behind ;
 Beholding thus, their journey made in vain,
 Back they repair to crowded towns again,
 And yield their places to another shoal,
 Who make the same remark, and homeward roll.

Reader, thou'st seen upon thy breakfast board
 By sugar, or by honey's sweets allur'd,
 Come buzzing round, a swarm of summer flies,
 Who taste, then quit alarm'd, the savory prize ;
 Thus court the Springs, the twitt'lers of a day,
 They drink, feel ennui, then slit away.

Yet when I see the bubbling fountain boil,
 For man's sole benefit content to toil ;
 Forever drawn on, and forever full ;
 Free to the rich and poor, the gay and dull,
 I quit, a while, the undulating crowd,
 And, musing o'er the Heaven-besprinkled flood,
 I bless his hand who makes such blessings free,
 Oh may his heart be reconciled to me !

Thus, as inspir'd Evangelists unfold,
 Bethesda's pool blessed Israel of old ;
 An angel, sent from Heaven, the waters blest,
 And he who first stepp'd in, its power confess ;
 He who press'd forward to the troubled pool
 Impell'd by faith, was certainly made whole.
 There lay the wither'd, maimed, infirm, and blind ;
 Diseases, Sin's best gift to fallen mankind.
 One, most infirm, for many years had lain,
 Nor strength, nor friends had he, the pool to gain ;
 The Angel's God, in human garb array'd,
 Then came in mercy to the poor man's aid ;
 Art thou, said Christ, now willing to be whole ?
 Receive new life in body, and in soul !
 The man renew'd, and impotent no more,
 Uprose, a monument of Jesus' power.
 Blest pool indeed ! where the Redeemer stood
 Man's gracious healer, lover, kinsman, GOD !

But Oh ye sick ! surrounding Ballston pool,
 Bred up professedly in Jesus' school ;

Can you be ignorant of truth so clear,
 That Jesus asks you the same question here ?
 Omnipotent, and present every where,
 His word invites you all his health to share ;
 Hear Him, He asks, " Shall I now make you whole ?"
 " No, thou shalt not ;" replies the blinded soul ;
 " I have my reason, yet could never see
 Such power in HIM who hung upon a tree :
 " Nor has my nature suffer'd so much loss,
 " As to induce me to take up thy Cross ;
 " I'll live in pleasure, and I'll trust in GOD,
 " Without a faith in thy redeeming blood."

Brother, or sister, search your heart and see
 If its response doth not with this agree !
 And is the Saviour humbled in thine eyes,
 Because HE scorn'd the glory of the skies,
 And took upon Him a meek servant's form,
 That he might be the brother of a worm,
 That worm to save ? If to thy soul thou'rt true,
 That worm he loved, He died to save—was you !
 Faith, raise thy wings, teach thou the muse to sing
 How Christ exceeds the virtues of this Spring.
 Eternal fountain of eternal bliss,
 He ne'er shall thirst again, who drinks of this ;
 Water of Life, He on his saints bestows,
 Which from the throne of God forever flows ;
 The Holy Spirit, He to them imparts,
 Who keeps, confirms, and sanctifies their hearts.
 The mournful catalogue of ills, which Sin
 Hath like a flood, on man's fall'n soul pour'd in,
 Christ blots forever out by his shed blood ;
 To Faith He makes war peace, and evil good ;
 The heirs of Hell, and slaves of Sin He brings
 As holy children to the King of Kings ;

Guides them on earth by his unerring eyes,
Then leads them to blest mansions in the skies.

Come here, Avarus, learn the healing art,
Drink at this Fount ; 'twill ease thy aching heart,
Reduce thy cares, give troubled conscience peace,
And bid thy joys eternally increase.

And thou, Commodus, having all but Grace,
Ranging for happiness from place to place,
To Jesus come ; His blessing shall refine
Thy present joys, and fill that soul of thine.

Albanus, hear the blest intreating word,
And ere thou leavest Life, live on the Lord ;
Now change thy motives, nor profane thy wine,
But drink it as a pledge of love divine :
Faith will work wonders, when it leads to God,
Cleansing the soul in Jesus' precious blood ;
Faith can wash white the crimson dye of sin,
And make a Burr, or Hamilton be clean,
When human remedies are tried in vain.

Herodius says, that divine creature Man,
Has power to act upon a nobler plan ;
He knows the gifts to him by God assign'd,
The heav'nly form, the energetic mind ;
A sense of honor will preserve him pure,
A just, a manly conduct, will ensure :
Let honor reign within the human breast,
And tame Religion may retire to rest.

Herodius, if thy theory be true,
I give its comment, a true tale to you.

Hear how Alcinous died, a lovely youth,*
A soul of virtue, modesty, and truth ;

* Mr. E. F. of Virginia, who fell in a duel some years ago.

He saw Almira, made of lowly state,
 Fortune smiled on her at an early date ;
 The genial hand of culture, fill'd her mind,
 With graces, which adversity refin'd.
 Her father died, of all his riches shorn,
 And left his daughter, with a charge forlorn,
 A widow'd mother, whom with love she tends
 Forgot, forsaken by her sunshine friends.
 Alcinous saw her ; his warm generous heart
 In all her sorrows bore a feeling part ;
 The more he knew her, he the more admir'd,
 Humble, tho' fair, accomplish'd, yet retir'd.
 He wooes the maid, his competence to share,
 And make her mother their united care :
 A heart so pure, soon kindled a return,
 With equal love their gentle bosoms burn ;
 Whilst the glad mother, fondly hopes to taste
 A cup of blessing, ere she sinks to rest.
 With one consent they name the bridal day ;
 Alcinous goes one evening to the play,
 Clodius insults him ; then redress demands,
 And claims a meeting with their seperate friends ;
 Honor and love, within Alcinous' soul
 Held a strong conflict, claiming each control ;
 The fire of youth, at length weighs down the scale ;
 He takes the challenge—Honor must prevail.
 That evening he to his Almira went,
 With heart of woe, and ominous portent ;
 Whilst she, elated with sweet hope and joy,
 To wake his smiles doth winning arts employ ;
 Not asking, but much wond'ring, how
 A cloud should darken on his cheerful brow.

Next day, Almira heard the tolling bell,
 And public rumor that Alcinous fell :

The man of honor, with accursed art,
Pierc'd with his ball Alcinous' noble heart.
She faints beneath the anguish of her soul,
But youth revives, tho' waves of sorrow roll ;
Th' aged mother, too weak to bear the shock,
Groans from her soul, and dies beneath the stroke.
Go now, and see fair Virtue in despair,
With locks dishevell'd, and with bosom bare,
Wand'ring distracted 'tween two tombs, and say
If Honor be to Heaven the perfect way ;
Religion would have saved that youth, to bless
A virtuous family with joy and peace.
Canst thou make *that* thy pride, which fills the tomb,
And *this* thy scorn that makes a happy home.

Tell me, ye wise, ye learned sons of art,
When bleeding by the sorrows of the heart,
You've dried the streams of all created aid,
If e'er one cure by human means was made,
Then why should Man, still court a human stay,
And cast the Soul's eternal prop away !

Behold the fountain Mercy here supplies,
And from this minor pool, direct your eyes
To that much richer fount, which heals the soul ;
And this just enquiry can you control ?
Where is the temple of the Heav'ly King ?
Who gave its virtues to this healing Spring ?
Where is the house, devoted to our God
Who gave his son, to shed for us his blood ?
Healer of body, and of soul, shall He
Be paid no homage for such love, so free ?
How sweet on Sabbath to declare his ways,
And yield the sacrifice of prayer and praise.
Preaching is pleasant ; has this town forgot
The style mellifluous of persuasive NOTT ;

With what rich eloquence, and force he proved
 The resurrection of the Lord he loved ;
 And the blest hope connected with his rise,
 That he shall bring His ransom'd to the skies,
 'Till infidelity hung down its head,
 Believ'd the truth he taught, and almost pray'd.
 Did not his words, like music, charm your ear ?
 Such rich repasts if you would oftener hear,
 Erect a temple to your risen Lord,
 There hear His servants, and receive His word.

This fertile theme a richer muse demands,
 And I resign it into abler hands.
 What though the Poet here be little prized,
 His doctrine and himself alike despised ;
 Yet should this boon to his warm pray'r be given,
 To hear one precious soul confess in Heaven,
 This Poem made him think—the mean of God
 To turn his footsteps to the heavenly road,
 'Twill fill my soul with ecstacy and praise,
 And pay me richly for my humble lays.

THE WHITE CLOVER.

THERE is a little modest flower,
 It well might grace the sweetest bower ;
 But poet never deigned to sing,
 Of such a humble rustic thing.
 Nor is it strange—for it can show,
 Scarcely one tint of Iris' bow :
 Nature perchance in careless hour,
 With pencil dry, might paint the flower :
 Yet instant blushed, the fault to see,
 And gave it double fragrancy.
 Rich recompence for aught denied !

Who would not homely garb abide,
 If gentle soul were breathing there,
 Blessings, through all its little sphere ?
 Sweet flower ! the lesson thou hast taught,
 Shall check each proud ambitious thought :
 Teach me eternal worth to prize,
 Though found in lowliest rudest guise.

~~THE MEETING OF THE WATERS.~~

There is not in the wide world a valley so sweet,
 As that vale in whose bosom the bright waters meet :
 Oh ! the last ray of feeling and life must depart,
 Ere the bloom of that valley shall fade from my heart.

Yet it was not, that nature had shed o'er the scene,
 The purest of chrystral, and brightest of green ;
 'Twas not the soft magic of streamlet or rill ;
 Oh no ! it was something more exquisite still.

'Twas that friends, the beloved of my bosom were near,
 Who made every scene of enchantment more dear ;
 And who felt how the best charms of nature improve,
 When we see them reflected from looks that we love.

Sweet vale of Avoca ! how calm could I rest,
 In thy bosom of shade, with the friends I love best ;
 Where the storms that we feel, in this cold world, should
 cease,
 And our hearts, like thy waters, be mingled in peace.

The Archbishop of Canterbury dying in the reign of George second, the King found it difficult to decide promptly upon a successor—Sending therefore for Dr. Mountain,

Bishop of Durham, he requested advise on the subject.— “Had your Majesty faith to work a miracle,” said the Dr. with a surprising air of modesty, “every difficulty would vanish.”—“The age of miracles is past,” replied the King; “besides, whence the necessity of supernatural agency in the present case? you must explain yourself”—“Nay, returned the bishop, should it please your Majesty to say unto this *Mountain* (pointing to himself) be thou removed into yonder *see*, it would instantly obey you.”

The king pleased with the subtlety of his spiritual Doctor, immediately conferred the title and dismissed him.

SELECT PASSAGES.

FROM THE LETTERS OF ROBERT BURNS.

RELIGION, my honored friend, is surely a simple business, as it equally concerns the ignorant and the learned, the poor, and the rich. That there is an incomprehensibly Great Being, to which I owe my existence, and that he must be intimately acquainted with the operations and progress of the internal machinery, and consequent outward deportment of this creature which he has made, these I think, are self-evident propositions. That there is a real and eternal distinction between virtue and vice, and consequently, that I am an accountable creature; that from the seeming nature of the human as well as from the evident imperfection, nay, positive injustice in the administration of affairs, both in the natural and moral worlds, there must be a retributive scene of existence beyond the grave, must, I think, be allowed by every one, who will give himself a moment's reflection. I will go farther and affirm, that from the sublimity, excellence, and purity of

his doctrine and precepts, unparalleled by all the aggregated wisdom and learning of many preceding ages, though, to appearance, he himself was the obscurest and most illiterate of our species—Therefore Jesus Christ was from God!

Whatever mitigates the woes, or increases the happiness of others, this is my criterion of goodness; and whatever injures society at large, or any individual in it—this is my measure of iniquity. What think you, madame, of my creed?

Religion, my friend, is the true comfort! A strong persuasion in a future state of existence; a proposition so obviously probable, that setting revelation aside, every nation and people, so far as investigation has reached, for at least 4000 years, have, in some form or other, firmly believed it. In vain would we reason and pretend to doubt. I have myself done so to a very daring pitch, but when I reflected that I was opposing the hopes of good men, and flying in the face of all ages, I was shocked at my own conduct. I know not whether I have ever sent you the following lines, or if you have ever seen them, but it is one of my favorite quotations, which I keep constantly by me in my progress thro' life, in the language of the book of Job:

Against the day of battle and of war, spoken of religion,

'Tis this, my friend, that streaks our morning bright,
'Tis this, that gilds the horrour of our night.
When wealth forsakes us, and when friends are few,
When friends are faithless; or when foes pursue;
'Tis this that wards the blow, or stills the smart,
Disarms affliction, or repels his dart;
Within the breast bids purest raptures rise,
Bids smiling conscience spread her cloudless skies!

I shall transcribe you a few lines I wrote in an hermitage belonging to a gentleman in my Nithsdale neighbourhood. They are almost the only favours the muses have conferred on me in that country.

Thee whom chance may hither lead,
Be thou clad in rustic weed ;
Be thou deck'd in silken stole,
'Grave these maxims on thy soul.

Life is but a day at most,
Sprung from night, in darkness lost,
Hope not sunshine every hour,
Fear not clouds will ever lower.

Happiness is but a name,
Make content and ease thy aim.
Ambition is a meteor gleam,
Fame an idle restless dream ;
Peace the tenderest flower of spring,
Pleasures—*insects on the wing* !
Those that sip the dew alone,
Make the butterflies their own :
Those that would the bloom devour,
Crush the locusts, save the flower.
For the future be prepared,
Guard wherever thou canst guard ;
But thy utmost duty done,
Welcome what thou canst not shun.
Follies past give thou to air,
Make their consequence thy care ;
Keep the name of *man* in mind,
And dishonor not thy kind.
Reverence, with lowly heart,
Him whose wondrous work thou art ;
Keep his goodness still in view,
Thy trust and thy example too.

Stranger, go ! heaven be thy guide !
Quoth—the beadsman of Nithside.

INSTANCE OF PRESENCE OF MIND.

A Prussian Clergyman applied to Frederic the great for permission to preach in his chapel, and requested his Majesty to honor him with his presence. The King thought it rather presumptuous for a country Clergyman to ask such a favor, but nevertheless complied with his request on condition of his preaching, the following Sabbath, from a text which his Majesty would send him.—The clergyman waited in anxiety from day to day, as he wished it in season to write a finished discourse from it. But sabbath morning arrived and no text came.

Supposing the King had forgotten his engagement, he entered the desk with an intention of preaching an old sermon. Frederic soon after came to the chapel, and immediately sent him a letter, which he opened and read—The contents were, “the enclosed is your text, you will preach immediately.” He opened the small piece of paper enclosed, when, to his great astonishment, he found it quite blank.—He held it out for the congregation to behold—observing ‘here is nothing’ and then turning it said ‘there is nothing,’ ‘and of nothing God created the Heavens and the Earth.’ Then quoting a verse from the first chapter of Genesis, he preached a sermon extempore.

The King was so much pleased with the presence of mind which the clergyman had exhibited, that he made him his almoner.

The following stanza was offered by the Rev. Mr. Pentecost, Rector of Wallingford, as a supplement to Collin's Ode on the passions, in which the author has omitted to personify love.

Another sweetly palid maid was there;

Of downcast, melting eye;

Her head alternate o'er each shoulder laid,

Her bosom orb'd with many a deep-drawn sigh;

Love was her name.

She touch'd the strings,

But thought the while, on other things;

And, desultory as she play'd,

"Dear sweetest swain!" full oft she said.

"Dear sweetest swain for whom I pine,

"Would mine thou wert, and I was thine!"

She started, sighed, and talked alone;

And ever as she said

"Dear sweetest swain!"

Her looks were motionless as stone.

From the Port Folio.

MOONLIGHT.

There is a bland and pensive hour,

Endearing, soothing is its power,

"Tis when the sun

Has shed his fading, ling'ring rays,

And when the doubtful light betrays

That day is done.

"Tis when Cynthia's rising beam,

Sheds on lake or rippling stream

Her silver gleams,

When some pale lover, wand'ring far,

Seeks the bright Hesperian star,

In fancy's dreams:

'Tis when the rais'd romantic mind,
To peace, to love, to heaven resigned
Loves to repair
To some wild fragrant myrtle cove
And there in contemplation rove
Releas'd from care.

'Tis when the fairy orb, serene,
Divinely blends each rural scene
Of hill and dale,
When by the heavenly visioned light,
From perfum'd spray the bird of night
Descants his tale.

'Tis when the grief-worn pilgrim lies
To commune with his kindred skies
To seek relief
In pious prayer—and fancy tells
That there the form regretted dwells,
Releas'd from grief.

'Tis when the sentient, wounded heart
Pierced by Slander's keenest dart,
O'erwhelmed with woes,
Flies from the busy haunts of men,
Eager to escape their vulgar ken,
And seek repose.

'Tis that blest hour when lovers stray
To taste those joys that shun the day,
Congenial hour,
When timid maids their lovers bless,
When by this light they first confess
Love's gentle power.

'Tis when the poet, Passion's child,
In fancy's world now wanders wild,
With soul on fire,
The strain of epic praise prolongs
Or tunes to melancholy songs
His pensive lyre.

'Tis when, as fabled poets say,
The wood land fairies, sylph, or jay,
Weave their light dance
And reel all the live-long night,
But vanish at the earliest light
Of morning's glance.

'Tis when, as Superstition says;
The soul departed oft betrays
Some secret crime,
Holds converse with its mutual heart,
Or leaves Elysium to impart
Some truth sublime.

Oh, still I love thy tranquil light,
Nor noontide sun, nor morning bright,
With thee compare,
For even when sorrow swells my breast,
Thy beams can sooth my soul to rest,
Sweet orb ! most fair.

The common cucumber, in the eastern countries, is boiled and eaten with vinegar. The richer sort fill it with flesh and spices, and bake it into a pudding, which is said to be extremely palatable.

Milne's Botan. Dictionary.

METEOROLOGY.

ABSTRACT OF METEOROLOGICAL OBSERVATIONS,
for the year 1813 ; made at Yale College ;
by Professor Day.

	Thermometer.			Barometer		Rain and		Most
	Highest	Lowest	Mean	Highest	Lowest	Snow water	prev. win	
Jan.	49°	-8	23.4	30.60	29.20	4.54		N. W.
Feb.	42	2	27.3	30.45	29.55	1.38		S. W.
March	62	8	32.4	30.60	29.40	5.36		N. E.
April	68	26	47.	30.50	29.65	3.68		S. E.
May	73	37	53.6	30.30	29.75	7.33		N. E.
June	87	47	66.8	30.40	29.75	4.17		S. W.
July	91	53	70.8	30.35	29.75	4.04		S. W.
August	87	56	72.1	30.45	29.70	4.11		S. W.
Sept.	86	49	66.5			4.92		N. W.
Oct.	66	27	50.4			5.86		N. W.
Nov.	67	23	42.2	30.53	29.70	3.9		S. W.
Dec.	48	11	30.	30.50	29.50	4.1		N. W.

Mean temperature of the whole year 43.54

Snow	-	-	47 inches.
Do. melted	-	-	6.
Rain	-	-	47.4
Rain and snow-water			53.4

Wind.	Weather.	
N. W. 105 days.	Clear	294 days
S. W. 87	Cloudy	50
N. E. 46	Broken clouds	48
N. 37	Rain	39
S. E. 37	Hazy	21
S. 27	Foggy	7
W. 19	Snow	6
E. 7		

RESULT OF METEOROLOGICAL OBSERVATIONS MADE AT WIL-
LIAMS COLLEGE IN 1811.

Communicated by Professor Dewey.

Months	Aver. Heat.	Great. heat	Least Heat.	Average Barom.	Winds.
Jan.	24.57	59 ⁰	3 below	29.99	Wind w. & n. w. 20 days.
Feb.	22.54	54	11 below	29.76	do. w. & n. w. 14 days.
March	38.53	67	2 below	29.99	do. w. & n. w. 15 days.
April	44.69	83	17 $\frac{1}{2}$ abov.	29.93	w. & n. w. 17 days.
May	55.83	85 $\frac{1}{2}$	28	30.07	w. & n. w. 12 days.
June	66.01	94 $\frac{1}{2}$	41	29.94	n. westerly 15; easterly 8 ds.
July	69.36	95	46	29.79	n. w. 12; s. e. 7; s. 9 days.
Aug.	65.55	93	42	29.96	n. w. 15; s. 6 days *
Sept.	58.83	86	32 $\frac{1}{2}$	29.93	n. w. 8; s. & s. e. 7 days.
Oct.	50.59	84 $\frac{1}{2}$	16	29.92	n. w. 13; s. & s. w. 11 days
Nov.	39.98	56 $\frac{2}{3}$	11	29.92	w. & n. w. 18; s. e. 7 days.
Dec.	27.51	52 $\frac{1}{2}$	8 below	29.88	{ w. & n. w. 18; s. w. 6; { s. e. 7 days.

The average heat of the year, 47°

Average of the greatest heat, 75 $\frac{1}{8}$ Do. least heat, 17 $\frac{1}{3}$ nearly

Average height of the Barometer, 29.92 inches.

*On the 19th, at 3 1/4 p. m. the heat in the shade was 96 1/3.

FOR 1813.

Months	Aver. heat.	Great heat.	Least heat.	Average Barom.	
Jan.	20. 0	29 46. $\frac{1}{2}$	15 below	29.76	
Feb.	24. 39	53.	12 do.	29.56	
March	27. 88	57.	3 $\frac{1}{3}$ do.	29.80	
April	43. 01	68 $\frac{1}{2}$	22 above	29.58	
May	52. 11	83.	28	29.63	{ The coldest was the morning of the 13th.
June	63. 78	95.	38 $\frac{1}{2}$	29.65	
July	65. 70	93.	41 $\frac{1}{2}$	29.59	
Aug.	66. 62	90.	42	29.67	
Sept.	60. 11	88.	36	29.66	
Oct.	45. 96	63.	18 $\frac{1}{2}$	29.56	Greatest heat on the 29th.
Nov.	37. 22	71.	13	29.59	Greatest heat on the 9th.
Dec.	24. 79	48.	5	29.61	
Average heat of the year,				44 $^{\circ}$ 32	
Do. of greatest heat,				71. 75	
Do. least heat				17. 80	
Average height of the Barom.					29. 64 inches.

N. B. On the 30th of January the Thermometer was one and a half below 0. On the 9th of January it was three below 0, in the morning, and twelve below 0 at night.

The height of the Barometer was not 30 inches from the 28th of March to the end of the year, except in two instances, the 22d Oct. for a few hours, and again on the 8 and 9th Nov. Its height has not been 30 but on 9 days in the year, and then but little above 30 inches. Has the height of the Barometer been as great for two or three years past as in preceding years?

METEROLOGICAL OBSERVATIONS MADE AT MIDDLEBURY COL-
LEGE.

November.

December.

	1813	Day.	Highest.	Lowest.	Mean.		Day.	Highest.	Lowest.	Mean.
Nov.						Dec.				
	1	36	29	22,5			1	41	31	36,
	2	38	27	32,5			2	32	20	26,
	3	36	32	34,			3	28	12	20,
	4	55	28	41,5			4	20	10	15,
	5	50	36	43,			5	30	16	23,
	6	48	36	42,			6	37	32	34,5
	7	62	42	52,			7	44	32	38,
	8	60	44	52,			8	40	31	33,5
	9	64	40	52,			9	42	30	36,
	10	60	44	52,			10	38	24	31,
	11	46	38	42,			11	35	14	24,5
	12	44	32	38,			12	26	16	21,
	13	32	24	28,			13	32	16	24,
	14	22	20	21,			14	30	17	38,5
	15	17	20	18,5			15	32	11	21,5
	16	32	20	26,			16	32	5	18,5
	17	32	9	20,5			17	36	28	32,
	18	35	20	27,5			18	39	28	33,5
	19	43	34	38,5			19	34	20	27,
	20	40	32	36,			20	20	11	15,5
	21	41	30	35,5			21	8	-6	1,
	22	40	30	35,			22	28	14	21,
	23	51	38	44,5			23	30	14	22,
	24	56	30	43,			24	24	2	13,
	25	56	47	51,5			25	20	2	11,
	26	41	28	34,5			26	9	-4	2,5
	27	40	31	35,5			27	20	-2	9,
	28	35	28	31,5			28	40	29	29,5
	29	34	28	31,			29	32	28	30,
	30	33	28	30,5			30	24	16	20.
							31	22	-1	10,5
General results.		30,83	42,63	35,73				29,81	11,	23,24

